



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,842	10/20/2003	Carles Flotats	60011826-2	9897

22879 7590 07/27/2005

HEWLETT PACKARD COMPANY  
P O BOX 272400, 3404 E. HARMONY ROAD  
INTELLECTUAL PROPERTY ADMINISTRATION  
FORT COLLINS, CO 80527-2400

EXAMINER

HSIEH, SHIH WEN

ART UNIT PAPER NUMBER

2861

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

<b>Office Action Summary</b>	<b>Application No.</b> 10/687,842	<b>Applicant(s)</b> FLOTATS ET AL.	
	<b>Examiner</b> Shih-wen Hsieh	<b>Art Unit</b> 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2003.  
 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☒ Claim(s) 1-9, 12 and 13 is/are allowed.  
 6) ☒ Claim(s) 10 and 11 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☒ The drawing(s) filed on 20 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☒ All    b) ☐ Some \*    c) ☐ None of:  
 1. ☒ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10-20-03</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

2. The disclosure is objected to because of the following informalities:

Page 5, line 7, please change fig. 3 into fig. 5. Because the details of the connecting arrangement (40) are in fig. 5.

### ***Claim Objections***

3. Claim 13 is objected to because of the following informalities:

Line 2, please change "in the print head scanning direction" into "in a print head scanning direction" to correct a minor lack of antecedent basis problem.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Toniolo (US Pat. No. 5,644,345).

In regard to:

Claim 10:

Toniolo teaches:

A hardcopy device comprising one or more print heads (22, for black ink head or 23, for color ink head, fig. 2) and means for moving said print heads in a scanning direction along a scanning axis (double-head arrow shown in fig. 1 on the support 18), and means for servicing said print heads (30, fig. 2), said servicing means including a first servicing means (50, figs. 1-3, and is a capping mechanism) movable to a position (shown from fig. 2 to fig. 3) for undertaking a first servicing operation (capping operation) and a second servicing means (34, figs. 1-3) attachable to said first servicing means (Examiner's note: through rocker 80) and movable to a position for undertaking a second servicing operation (wiping operation), refer to col. 4, lines 29-60.

Claim 11:

Art Unit: 2861

A service station for a hardcopy device, said service station being arranged to be mounted on said hardcopy device for relative movement thereto, and said service station comprising a plurality of servicing modules, at least one of the modules being detachably connected to the other servicing modules.

Rejection:

This claim is rejected on the basis as set forth for claim 10 discussed above. The reason is: since the first servicing tool and the second servicing tool are connected together by a rocker (80), both ends of the rocker are fitted into a fork (84 and 85 respectively), or the two servicing tools are not rigidly connected. So in assembling, the capping device (50 with its support 42) and the trough (36, having the wiper 34) are snapped into the forks (84 and 85) respectively. Although the words "attachable" and "detachably connected" are not explicitly disclosed in Toniolo's reference, inherently, such features are implicitly contained in his invention. The trough can be detached from the rocker for any reason, such as changing the trough, because it fills up with the ink and has to be replaced.

***Allowable Subject Matter***

6. Claims 1-9, 12 and 13 are allowed.

7. The following is a statement of reasons for the indication of allowable subject matter:

Art Unit: 2861

In regard to:

Claims 1-9:

The primary reason for the allowance of claims 1-9 is the inclusion of the limitation of a detachable connection, which is used to connect/disconnect one of a service module to/from the rest of service module(s) in a service station comprising a plurality of service modules used to service print head(s). It is this limitation found in each of the claims, as they are claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

Claim 12:

The primary reason for the allowance of claim is the inclusion of the method step of attaching said first servicing module to a second servicing module and moving it to a position in which at least the second servicing module is in alignment with the print heads to undertake the second servicing operation. It is this step found in this claim, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

Claim 13:

The primary reason for the allowance of claim is the inclusion of the method step of for at least a second servicing operation, moving the service station to a position in which it is attached to a second servicing module and then to a position in which at least the second servicing module is in alignment with the print heads to undertake the second servicing operation. It is this step found in this claim, as it is claimed in the

Art Unit: 2861

combination that has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Instant application is similar to railway train cars joining together by a coupling. The service modules corresponds to the cars, and the detachable connection is as shown at least in fig. 5. Based on this US 2,273,621, "Train coupling device" is cited. In which, figs. 4 and 5 show couplings (2 and 3) used to join cars (1) together.

In ink jet art, carriage is used to mounted print head, and the carriage reciprocates along a so-called main (or first or primary) scanning direction to print an image. Some of the art teach a plurality of carriages each mounted a head to performed its designed function, when necessary, these carriages are connected together by a device, such as US 5,018,884", "Recording apparatus in which a plurality of carriages can be connected and separated" issued to Hirano et al., 5/91 teaches in their fig. 1 a connecting lever (13) is used to connect/disconnect a carrier (10) to another carrier (19). The concept of the instant application is similar to this.

Instant application uses the above concepts to service modules. To this end, a plurality of service modules such disclosed in US 6,193,353 (figs. 4 and 5); US

Art Unit: 2861

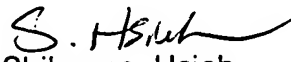
6,135,585 (fig. 2); US 6,644,775 (figs. 21 and 22), etc. all having the service modules placed side by side, and servicing print heads at the same time.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shih-wen Hsieh whose telephone number is 571-272-2256. The examiner can normally be reached on 7:30AM -5:00PM.

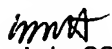
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Talbott can be reached on 571-272-1934. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SHIH-WEN HSIEH  
PRIMARY EXAMINER

  
Shih-wen Hsieh  
Primary Examiner  
Art Unit 2861

SWH

  
July 22, 2005